ORDINANCE NO. 15-98

AN ORDINANCE AMENDING THE ROGERS CITY CODE BY ADOPTING SECTION 14-2, CODIFYING GUIDELINES FOR DEVELOPMENT OF PROPERTY WITHIN THE CAVE SPRINGS DIRECT RECHARGE AREA WHICH INCLUDES AREAS WITHIN THE CITY OF ROGERS; PROVIDING FOR THE EMERGENCY CLAUSE AND FOR OTHER PURPOSES.

WHEREAS, the Northwest Arkansas Regional Planning Commission commissioned a study of the Cave Springs Recharge Area; and

WHEREAS, the Northwest Arkansas Regional Planning Commission and the United States Fish & Wildlife Service recommends implementation of the Cave Springs Area Karst Resource Conservation Regulations ("CSK Regulations"), to help protect the endangered species in the area; and

WHEREAS, the purpose of the CSK Regulations is to permit development of property in a manner that will not degrade or adversely affect the water quality of the Cave Springs Direct Recharge Area;

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF ROGERS, ARKANSAS:

Section 1: That Rogers City Code is hereby amended by adopting Section 14-2, as shown in Exhibit "A", attached hereto and incorporated by reference as if set out word for word herein.

Section 2: That the need to adopt said city code sections is immediate and in order to protect the public peace, health, safety and welfare an emergency is hereby declared to exist and this Ordinance shall be in full force and effect from the date of its passage and approval.

Section 3: **Severability Provision-** In the event that any section, paragraph, subdivision, clause, phrase, or other provision or portion of this Ordinance shall be adjudged invalid or unconstitutional, the same shall not affect the validity of this Ordinance as a whole, or any part or provision, other than the part so decided to be invalid or unconstitutional, and the remaining provisions of this Ordinance shall be construed as if such invalid, unenforceable or unconstitutional provision or provisions had never been contained herein.

Section 4: **Repeal of Conflicting Ordinances and Resolutions-** All ordinances, resolutions or orders of the City Council, or parts of ordinances, resolutions or orders of the City Council in conflict herewith are hereby repealed to the extent of such conflict.

PASSED this 28th day of July, 2015.

APPROVED:

C. GREG HINES,
Mayor

Attest:

PEGGY DAVID, City Clerk

CITY OF ROGERS SEAL CITY CLERK

Requested by: Lance Jobe
Prepared by: Chris Griffin, Senior Staff Attorney

EXHIBIT "A"

Sec. 14.2 - Cave Springs Area Karst Resource Conservation Regulations

(a) Intent

These Cave Springs Area Karst Resource Conservation Regulations ("CSK Regulations") are enacted to protect the water quality of the Cave Springs Recharge Area and to protect the aquatic habitat of Cave Springs, including but not limited to the habitat for the Ozark Cavefish. The CSK Regulations apply within the boundaries of the Direct Recharge Areas of the City of Rogers, City of Springdale, City of Lowell, and Town of Cave Springs, Arkansas.

The protection of Cave Springs' aquatic habitat water quality shall be accomplished by managing and/or regulating certain new development activities that may adversely affect the water quality of the Cave Springs Recharge Area and any threatened and/or endangered species in the Cave Springs Direct Recharge Area. The Cave Springs Direct Recharge Area is characterized by variable soil conditions and losing stream segments which allow localized and concentrated discrete recharge. Discrete recharge waters rapidly enter the groundwater system and pose a significant threat to groundwater contamination with low dissolved oxygen.

Critical elements of this regulation are to establish stormwater detention basins and buffer zones from losing stream channels and water ways and to establish best management practices (BMPs) for new development activities. These CSK Regulations require a Disturbance Permit for certain development activities and prohibit certain development activities in designated areas. Where development activity is permitted, a Disturbance Permit shall require best management practices which shall depend upon the type of development activity and the location of the activity. These CSK Regulations also require the on-going maintenance of vegetation and/or stormwater structures when required with a Disturbance Permit. The presumptive habitat of the Ozark Cavefish shown on Exhibit 10-1 is not a part of these CSK Regulations.

(b) Purpose

The purpose of these CSK Regulations is to permit the development of property in a manner which will not degrade or adversely affect the water quality of the Cave Springs Direct Recharge Area which includes the following specific purposes:

1. Establish effective water quality regulations to protect the Cave Springs Recharge Area through the use of stream buffers, runoff reduction practices, filtration, source controls, construction practices and control measures, waste water policies and practices, requirements for buried facilities that are potential pollutant sources, and spill prevention and control practices to protect the quality of water that enters the groundwater system.

2. Minimize the discharge of water into the Cave Springs Recharge Area with contaminants, low dissolved oxygen, or other constituents that may degrade the Cave Springs aquatic habitat water quality.

3. Reduce the rate at which surface flows enter the shallow groundwater system that sustains the Ozark Cavefish to promote natural cleansing and treatment.

4. Establish procedures and criteria which allow flexibility in the application of best management practices and permitted land uses to prevent degradation of the Cave Springs Recharge Area which may result from new development.

5. Require the submittal of relevant and accurate information for development activities in order to determine the applicability of these CSK Regulations and review disturbance permits.

(c) Definitions

The following words and phrases, when used in these CSK Regulations, shall have the meanings respectively ascribed to them in this section, except when the context otherwise requires:

Best Management Practices (BMPs) means economically feasible conservation, construction management, site improvements, on-going maintenance and/or treatment practices that prevent, reduce or minimize degradation of water quality or prevent, reduce or minimize the increase of discrete recharge to the Cave Springs Recharge Area. *BMPs* may include a wide range of structural and nonstructural practices to be implemented in association with land disturbance, development and construction activities.

Buffer means the area extending from a losing stream or other geologic features which allow discrete recharge into the Cave Springs Recharge Area.

Cave Springs Recharge Area means all land areas in which water that infiltrates the ground migrates to Cave Springs as depicted on the Official Cave Springs Recharge Area Map as may be amended from time to time.

Cave Springs Direct Recharge Area means the areas designated Zones 1 through 3 on the Cave Springs Direct Recharge Area Vulnerability Zone Map, as may be amended from time to time, Exhibit 10-2.

Cave Springs Direct Recharge Area Vulnerability Zone Map means the official map depicting vulnerability zones in the Cave Springs Direct Recharge Area.

Cave Springs Indirect Recharge Area means areas outside the Cave Springs Direct Recharge Area . See the Official Cave Springs Recharge Area Map, Exhibit 10-1, and Zone 4 on Exhibit 10-2 where a low volume of water that infiltrates the ground enters the Cave Springs Recharge Area.

CSK Regulations means these Cave Springs Area Karst Resource Conservation Regulations.

City Engineer means the City Engineer of the City of Rogers, or the Mayor's designee, who shall administer these CSK Regulations.

Disturbance Permit means a permit which authorizes site development activity in a Direct Recharge Area or a Buffer area and includes a Disturbance Plan and Mitigation Plan for site development.

Disturbance Plan means the plan for disturbance of lands in the Cave Springs Direct Recharge, Area and any associated buffer area, as required by this CSK Regulation.

Drainage Criteria Manual means the 2012 Drainage Manual of the City of Rogers, Arkansas, adopted by the City of Rogers .

Groundwater Trough means the groundwater trough depicted on the Cave Springs Direct Recharge Area Vulnerability Zone Map, Exhibit 10-2.

Losing Stream means a stream that is depicted on the Cave Springs Direct Recharge Area Vulnerability Zone Map, Exhibit 10-2.

Mitigation Plan means the plan for mitigation of stormwater discharges into the groundwater in the Cave Springs Direct Recharge Area as required by this CSK Regulation.

Sinkhole means a natural depression in the surface of the land capable of conveying surface water into the underlying karst groundwater system.

Spring means any point or localized area where water naturally flows to the surface of the earth from underground; the flow must be perennial with flow rates at least 5 gallons per minute.

Stream means a flow of surface water sufficient to produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the passage of water.

The following vulnerability zones are established as shown on the Cave Springs Direct Recharge Area Vulnerability Zone Map, attached as Exhibit 10-2.

Zone 1 Extremely High Vulnerability means the area shown in red, adjacent to losing streams, or all lands within the Cave Springs Groundwater Trough.

Zone 2 High Vulnerability means the area shown in orange outside the Cave Springs Groundwater Trough.

Zone 3 Moderate Vulnerability means the area shown in yellow outside the Cave Springs Groundwater Trough.

The following vulnerability zones are in the Cave Springs Indirect Recharge Area.

Zone 4 Low Vulnerability with I-49 Corridor Highway BMPs means the area shown in green on Exhibit 10-2 and includes additional area that extends further east. Zone 4 includes the entire Indirect Recharge Area as depicted on Exhibit 10-2.

(d) Applicability

1. Effective Date. The CSK Regulations shall apply only to development activities that occur in the Cave Springs Direct Recharge Area after July 29, 2015 within the Cave Springs Direct Recharge Area.

2. Applicability. The CSK Regulations shall apply to the following development activities:

    i. Any development, including but not limited to residential, commercial, industrial, construction of public infrastructure, or other grading activity, that exceeds one acre in disturbance or is part of a larger common development [any project that requires a permit for stormwater discharge from ADEQ - state stormwater – Arkansas Department of Environmental Quality];

ii. New or expanded industrial use, gas stations, laundromats, commercial development, mining, or hazardous material storage regardless of the size of the disturbance; and,

iii. Subdivisions of tracts of land which create three or more lots or subdivisions which subdivide tracts of land greater than one acre.

3. Exemptions. The following development activities shall be exempt from the application of these CSK Regulations.

i. Pending applications that have received preliminary plat approval prior to the effective date of these CSK Regulations, provided that such applications shall not be exempt if the final plat is denied or if the preliminary plat approval expires.

ii. Development of single-family detached home on a residential lot which was subdivided and developed with public infrastructure prior to the effective date of these CSK Regulations.

iii. Residential or commercial development on a lot which existed prior to the effective date of these CSK Regulations which does not cause the disturbance of 1 acre or more or which is not part of a larger common development.

4. More Restrictive Regulation applies. In the interpretation and application of these CSK Regulations the provisions herein shall be held to be minimum requirements for the promotion of the public health, safety and welfare. Whenever the requirements of these CSK Regulations are more or less restrictive than the requirement of any other lawfully adopted rules, regulations or ordinances, including any applicable state or federal regulations, the more restrictive regulation or the regulation imposing the higher standards shall govern.

(e) Disturbance Permit

1. Disturbance Permit Required. A Disturbance Permit shall be approved prior to any grading or development activity in Vulnerability Zones 1, 2 or 3.

2. Review Officer or Agency. The review officer shall be the City Engineer unless the proposed development activity requires review by the Planning Commission and/or City Council, in which case the Disturbance Permit may be reviewed concurrently with other development applications as is determined appropriate and efficient by the City Engineer.

3. Final permit in Writing. The Disturbance Permit shall be in writing and shall include any conditions of approval.

4. Appeal. The decision of the City Engineer or Planning Commission may be appealed to the City Council in accordance with Section (k).

(f) Application Submittal Requirements

In addition to other submittal requirements for site development applications, an applicant shall submit the information identified below for any site development that requires a Disturbance Permit pursuant to these CSK Regulations.

1. Proposed disturbance. A description of the proposed activity causing disturbance, including the amount, location and acreage of the area or wetland fill, removal or other alteration proposed, and location and extent of proposed disturbance in the inner and outer buffer zones.

2. Boundary map. A map or diagram separately depicting the boundaries, if any, of the Cave Springs Groundwater Trough, the boundaries of Zone 1, Zone 2, and Zone 3 Vulnerability areas, and depicting the boundary of losing streams as defined on the Cave Springs Direct Recharge Area Vulnerability Zone Map as it affects the proposed development site.

3. Site Map. A map or diagram depicting the following features:

    i. Delineation of Inner Buffer and Outer Buffer as determined by these CSK Regulations.

    ii. Slope Study Map that indicates areas of less than 3% grade and areas of 3% or greater grade in the Inner Buffer and Outer Buffer areas.

    iii. Areas of erosive soils.

    iv. Areas with poor vegetative cover and areas of existing erosion.

    v. Unstable stream reaches.

    vi. Storage areas for hazardous materials, fertilizers, or pesticides.

    vii. Wetlands and waterbodies.

    viii. Sanitary wastewater collection, storage, treatment, pumping facilities.

4. Proposed Disturbance Plan. A proposed draft Disturbance Plan that includes the following elements:

    i. Grading plan. A grading and erosion control plan, utilizing soil stabilization measures and practices to minimize the impacts of the proposed disturbance including a time frame for installation of erosion control measures.

    ii. Revegetation plan. Plan showing quantity and type of plant material to be used for revegetation, time frame for revegetation and proposed soil stabilization measures.

    iii. Best Management Practices ("BMP") Plan. A plan to minimize or reduce the degradation of water quality and the increase of discrete recharge to the Cave Springs Recharge Area, including on-going maintenance requirements, through utilization of Best Management Practices.

iv. Maintenance Plan. Where applicable, an enforceable plan for maintenance of structural elements of the Disturbance Plan.

5. Alternative analysis. A statement and analysis of any practicable on-site development configuration alternatives to the proposed development activity causing disturbance which reduce or avoid such disturbances, including reduction in the scale of the proposed development.

6. Army Corps. For activities that involve the fill of wetland areas, evidence of acceptance of the Plan by the U.S. Army Corp of Engineers.

(g) Review Criteria

The reviewing entity shall use the review criteria in this Section for review of Disturbance Permits for site development in the Direct Recharge Area. Disturbance Permits shall meet all the applicable review criteria. In all cases where an application for a Disturbance Permit meets the applicable review criteria, an acceptable Disturbance Plan is required as a condition of issuance of Disturbance Permit.

1. The Disturbance Plan shall comply with standards, criteria and best management practices of Chapters 9 and 10 of the City of Rogers, Arkansas Drainage Criteria Manual as may be amended from time to time.

2. The Disturbance Plan shall meet the minimum requirements set forth in Section (f)(4). Any required on-going maintenance in the Disturbance Plan shall be in a legal form that is enforceable by the City of Rogers, Arkansas against the property owner or legal entity and shall include provisions for recovery of costs for enforcement against the property owner of record.

3. The Disturbance Permit is for a development activity that is permitted in the Vulnerability Zone.

4. The proposed disturbance shall avoid any grading or disturbance in the Inner Buffer area and Outer Buffer areas (if applicable) except those permitted activities and uses as defined in Section (j)(5)(i) which cannot be practically avoided if the following additional criteria are met:

   i. the area of disturbance is minimized;

   ii. adequate mitigation and best management practices are proposed in the Disturbance Plan; and,

   iii. site restoration and re-vegetation is proposed.

(h) Variance

An applicant for a Disturbance Permit may apply for variance from compliance with the review criteria set forth in Section (g) pursuant the review procedures and review criteria established in this Section (h).

1. Review Procedures. Applications shall follow the same review procedures and shall provide the same minimum information as required for Disturbance Permits. In addition, the application for a variance shall identify those review criteria in Section

(g) from which a variance is sought and shall include a narrative and other appropriate descriptive material to describe why the requested variance or variances meet the review criteria set forth below. The application shall include any information or soil studies demonstrating that the actual soil types on the subject property are different than the soil types indicated in the vulnerability zones described in Chapter 10 of the "Drainage Criteria Manual".

2. Review Authority. The review authority shall be the Planning Commission. Decisions of the Planning Commission may be appealed to the City Council in accordance with Section (k).

3. Review Criteria. The review authority shall use the following review criteria as the basis for a decision on an application for a variance:

   i. In all cases, conditions or mitigation may be imposed upon a variance to minimize the adverse impacts of the requested variance on the goals and objectives of the CSK Regulations or to ensure compliance with approved Disturbance Plans; and,

   ii. At least one of the following criteria must be met:

      (1) The variance is needed to relieve hardship caused by the strict and literal interpretation of the Disturbance Permit review criteria which hardship is unique to the subject property due to unique characteristics, configuration, access, site conditions, or location of the subject property; or,

      (2) The relief from the strict or literal interpretation and enforcement of a specified regulation, criteria or best management practice is necessary to achieve compatibility and uniformity of treatment among sites in the vicinity or to attain the objectives of these CSK Regulations without the grant of special privilege to the subject property; or,

      (3) The relief from the strict or literal interpretation and enforcement of a specified regulation, criteria or best management practice is minimized to the extent practical and the goals and objectives of these CSK Regulations are otherwise met; or,

      (4) Soil studies are submitted that provide evidence the actual soils on the subject property are better than the soil types indicated in the vulnerability zone district designation and that the actual soil types allow for variance from the strict or literal interpretation and enforcement of a specified regulation, criteria or best management practice while still meeting the goals and objectives of these CSK Regulations.

4. Required Findings. The review authority shall make the following written findings before granting a variance:

   i. That the granting of the variance will not constitute a grant of special privilege inconsistent with the limitations on other properties classified in the same vulnerability zone;

ii. That the granting of the variance will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity;

iii. That the variance is warranted for one (1) or more of the following reasons:

(1) The strict, literal interpretation and enforcement of the specified regulation would result in practical difficulty or unnecessary physical hardship inconsistent with the objectives of the Development Code;

(2) There are exceptional or extraordinary circumstances or conditions applicable to the site of the variance that do not apply generally to other properties in the same zone; or

(3) The strict or literal interpretation and enforcement of the specified regulation would deprive the applicant of privileges enjoyed by the owners of other properties in the same zone district;

iv. Conditions. A variance granted by the review authority may contain limitations as to time or disposition or use of the subject property in order to ensure that the stated purpose of the variance request is realized.

v. Expiration. The variance approval expires two (2) years after approval if the Disturbance Permit is not commenced, provided that the review authority may approve a longer time period for the variance approval, including a permanent variance approval, as determined appropriate due to the circumstances and nature of the variance application.

(i) Water Quality Protection Zones

The CSK Regulations address three distinct Water Quality Protection Zones, including Vulnerability Zones, Losing Streams and associated Inner and Outer Buffer Zones, and the Ground Water Trough.

1. Vulnerability Zones. Commercial and Industrial are NOT allowed in Zones 1 and 2 under City of Rogers, Arkansas Code of Ordinance Zoning Districts C-1, C-2, C-3, C-4, I-1, and I-2.

2. Losing Stream.

3. Groundwater Trough.

4. Amendment to Vulnerability Zone Designation.

A property owner may apply to change the vulnerability zone designation from Vulnerability Zone 2 or Zone 3 to Vulnerability Zone 3 or Zone 4 pursuant to the procedures and review criteria set forth herein.

i. Review Procedures. The application shall include the following minimum information:

(1) Site Map. A map or diagram depicting the following features:

(A) Delineation of Inner Buffer and Outer Buffer as determined by these CSK Regulations.

(B) Slope Study Map that indicates areas of less than 3% grade and areas of 3% or greater grade in the Inner Buffer and Outer Buffer areas.

(C) Areas of erosive soils.

(D) Areas with poor vegetative cover and areas of existing erosion.

(E) Unstable stream reaches.

(F) Storage areas for hazardous materials, fertilizers, or pesticides.

(G) Wetlands and waterbodies.

(H) Sanitary wastewater collection, storage, treatment, pumping facilities.

(2) Boundary map. A map or diagram separately depicting the boundaries of the Cave Springs Groundwater Trough, the boundaries of Zone 1, Zone 2, and Zone 3 Vulnerability areas, depicting the boundary of losing streams, and depicting the boundary of losing streams as defined on the Cave Springs Direct Recharge Area Vulnerability Zone Map as it affects the proposed development site.

(3) Soils and Hydrogeologic Conditions Analysis. A detailed analysis that accurately depicts the soil and hydrogeologic conditions on the subject property.

(4) Additional Information and Peer Review. The City Engineer or review authority may request additional information, studies or peer review, as deemed appropriate and relevant to providing sufficient information to evaluate the application for compliance with the applicable review criteria.

(5) Burden of Proof. The burden of proof shall be on the applicant to demonstrate that the existing vulnerability zone designation is not appropriate and that a new vulnerability zone designation is clearly warranted.

ii. Review Authority. The Planning Commission shall review and make a recommendation and the City Council shall review and take final action to approve or disapprove an application to change the vulnerability zone designation on the subject property.

iii. Review Criteria. The review authority shall use the following review criteria as the basis for a decision on an application to change the vulnerability zone designation:

(1) The application clearly demonstrates and provides convincing evidence that the soil and hydrogeologic conditions on the entire subject property warrant inclusion in the requested vulnerability zone district; and,

(2) The change of vulnerability zone district designation will not create a non-uniform or haphazard vulnerability zone district map, or result in vulnerability zone designations that split a property that will complicate administration and implementation of these CSK Regulations on a property by property basis.

(j) Buffer

Inner and Outer Buffers are areas extending from the centerline of Losing Streams. The width of Inner and Outer Buffer shall be determined by location within Zones 1, 2 or 3, in accordance with Table 1-A below.

1. Applicability. Buffer requirements apply to development activities within Zones 1, 2 and 3.

2. Measurement. The Buffer shall be measured outward on each side of the centerline of a losing stream on a horizontal scale perpendicular to the channel centerline.

3. Inner Buffer. The Inner Buffer is restrictive and cannot be reduced or adjusted except as may be approved in a Disturbance Permit.

4. Outer Buffer. The Outer Buffer establishes an additional Buffer area that extends beyond the Inner Buffer. The Outer Buffer may be reduced based on site specific conditions, proposed BMPs and proposed activities.

5. Uses/Activities. Certain uses and activities are permitted or prohibited in the Buffer areas, which are described as follows:

   i. Permitted Uses/Activities. Permitted uses and activities in the Inner Buffer include:

      (1) Open Space;

      (2) Trails, biking/hiking paths;

      (3) Herbicide use in native landscaped areas should be as limited as possible within the buffer zone to small spot treatments. No utility corridor spraying is allowed. Herbicides must not be used when there is ponded or flowing water on the surface, all labeled instructions must be followed.

      (4) Utilities;

      (5) Road and Bridge crossings;

      (6) Wetland mitigation, stream stabilization and stream restoration projects;

      (7) Projects to enhance or restore functions of Buffer or stream;

(8) Stormwater BMPs that are not economically feasible to locate in the Outer Buffer and must be located in the Inner Buffer to achieve desired function;

(9) Maintenance activities associated with permitted uses and activities; and,

(10) Uses and activities that are determined by the City Engineer to be similar to the uses and activities described above.

ii. Prohibited and Restricted Uses/Activities. Prohibited and restricted uses in the Inner Buffer include:

(1) Grading, stripping, or other soil disturbing practices not related to a permitted use or activity;

(2) Filling, dumping or storage of material not related to a permitted use or activity;

(3) Draining the Buffer area by construction of ditches, installation of under drains or other systems, or any grading or excavation work which has the effect of draining the Buffer area which is not related to a permitted use or activity;

(4) Use, storage, or application of pesticides, herbicides (except as permitted in Section (j)(5)(i)(3) above), fertilizers, hazardous materials or toxic materials;

(5) Fueling facilities and storage of fuel or petroleum products above or below ground;

(6) Storage, repair or operation of motorized vehicles other than for maintenance of permitted activities and uses or for emergency response purposes;

(7) Structures or other impervious surfaces, except paved trails and accessory outdoor recreational facilities including but not limited to: picnic tables, benches, sitting areas, subject to the requirements of a Disturbance Permit;

(8) Land application of biosolids; and,

(9) Other uses and activities that are determined by the City Engineer to pose an unacceptable risk to water quality of the receiving waters and the Cave Springs cave system.

6. Buffer Table. Table 1-A Buffer Width Determination sets forth the minimum Inner Buffer, the standard Outer Buffer, and Adjustment Factors which may decrease the Outer Buffer.

Table 1-A – Buffer Width Determination

Cave Springs Outer Buffer Width Adjustment Worksheet

Note: Buffers apply to losing stream and other sensitive features that directly recharge the Cave Springs aquifer. Most losing streams are included in Zone 1; however, there may be losing stream segments and other sensitive features in Zones 2 and 3. Determination of reductions to outer buffer zone should be based on the section(s) of land that are directly affected by the considered reduction(s), rather than applied to the entire area of development. One or more of the reduction considerations can be applied to different areas of the development. Each side of the channel should be considered separately.

Buffer Condition	Zone 1 – Extremely High Vulnerability	Zone 2 – High Vulnerability	Zone 3 – Moderate Vulnerability
Maximum outer buffer width both sides of centerline of channel (feet)	300	200	100
Minimum inner buffer width both sides of centerline of channel (feet)	100	50	50
Eligible outer buffer width adjustment both sides of centerline of channel (feet)	200	150	50
Describe the portion and side of channel being considered (banks identified left to right looking downstream)	Ex. Clear Creek, Right Bank Buffer, 2000 feet through Green Acres Development (see attached map).		

Adjustment Factors	Buffer Adjustment (feet)	*Place "X" if applicable*	Buffer Adjustment (feet)	*Place "X" if applicable*	Buffer Adjustment (feet)	*Place "X" if applicable*
1 – Land Use						
1a – Parks and open space	-50		-40		-30	
1b – Large lot residential (>0.5 acre) or low-density (<2 units/acre)	-25		-20		-15	
1c – Residential high-density (>2 units/acre)	0		0		0	
1d – Office land use	0		0		0	
1e – Commercial land use	Not allowed per zoning without variance process		Not allowed per zoning without variance process		0	
1f – Industrial land use					0	
1g – Agricultural land use	0		0		0	
Total Land Use Width Adjustment (feet)	Sum of X's =		Sum of X's =		Sum of X's =	
2 – Average Ground Slope within 50 feet of edge of inner buffer (choose one)						
2a – 0-3% toward waterway	-10		-10		-10	
2b –Greater than 3% toward waterway	0		0		0	
Total Ground Slope Width Adjustment (feet)	Sum of X's =		Sum of X's =		Sum of X's =	
3 – Outer Buffer Zone Vegetation Characteristics within 50 ft of inner buffer (choose one)						
3a –Good dense, healthy vegetative cover (>80%)	-25		-20		-15	
3b – Existing fair cover (30-70%) to be restored to good (>80%)	-35		-30		-20	
3c –Existing poor cover (<30%) to be restored to good (>80%)	-50		-40		-30	
Total Filtration Characteristics Width Adjustment (feet)	Sum of X's =		Sum of X's =		Sum of X's =	
4 – Implementing Best Management practices (BMPs)						
4a – No below-surface disturbance within inner buffer	-20		-15		-10	
4b – No direct overland or piped discharge to inner buffer or losing stream	-25		-20		-15	
4c - Minimize directly connected impervious surfaces	-20	X	-15		-10	
4d – Stormwater pond designed in accordance with Karst Provisions of City Drainage Manual with additional media filtration layer	-100		-75		-50	
4e-- Other stormwater quality BMPs from City Drainage Manual that provide the WQCV and media filtration of runoff (raingardens, media filters, and similar)	-100		-75		-50	
Total Best Management Practices Adjustment (feet)	Sum of X's =		Sum of X's =		Sum of X's =	
5 – Wastewater Disposal Quantities & Quality						
5a – City Gravity Sewer System	0		-25		-25	
5b – Pumped Effluent Sewer System	0		0		-25	
5c– Septic Tank & Leaching Fields	Not allowed without variance process		Not allowed without variance process		Not allowed without variance process	
5d--Utility trenches constructed with cutoffs in trench to minimize preferential flow through trench bedding	-25	X	-20		-15	
Total Wastewater Disposal Width Adjustment (feet)	Sum of X's =		Sum of X's =		Sum of X's =	

TOTALS			
Outer Buffer Adjustment Total (feet) · **Total of adjustments for items with "X" =**			
Eligible Outer Buffer Width Adjustment from Centerline of Channel	200	150	50
Adjusted Outer Buffer **200 feet - Total of Adjustments, Minimum of zero (0) =**			
Total Buffer Width required From Centerline of Channel after adjustments) (feet) **Inner Buffer + Adjusted Outer Buffer =**			

(k) Appeals

This Section sets forth the procedures to appeal a decision of the Planning Commission which is made pursuant to this CSK Regulations. Only a final decision of the Planning Commission may be appealed. Recommendations to a decision making authority are not subject to appeal.

1. Appeal Procedures. An appeal may be submitted by an applicant for a disturbance permit or by any other party with standing. The appellant must provide a written request for appeal of a decision of the Planning Commission to the City Clerk within fourteen (14) days after the date of the decision. The City Council shall conduct a public hearing within sixty-five (65) days of receipt of a written request for appeal. Written notice of the public hearing date, time and location shall be mailed to the appellant via first-class U.S. mail at least ten (10) days prior to the public hearing, unless the appellant agrees to a shorter time frame and a different notification method.

2. Review Authority. The City Council shall review appeals of decisions of the City Engineer after conducting a public hearing. The City Council shall render the final decision on an appeal.

3. Review Criteria. The City Council shall use the applicable review criteria for a Disturbance Permit set forth in Section (g). The City Council shall review decisions *de novo.*

4. Decision. The City Council shall, in writing, confirm, modify or reverse the decision within thirty-five (35) days of holding the public hearing on the appeal. Any decision by the City Council that results in action modifying or reversing the decision of a City body or officer shall describe the specific reasons for the modification or reversal. Action of the City Council shall become final immediately. Failure of the City Council to act within the thirty-five (35) days of holding the public hearing on the appeal shall be deemed action confirming the decision unless the Applicant consents to an additional time extension.

5. City Council Decision Final. A decision of the City Council is final. An aggrieved person may appeal a decision of the City Council to the District Court or to another Arkansas state court or federal court of competent jurisdiction.

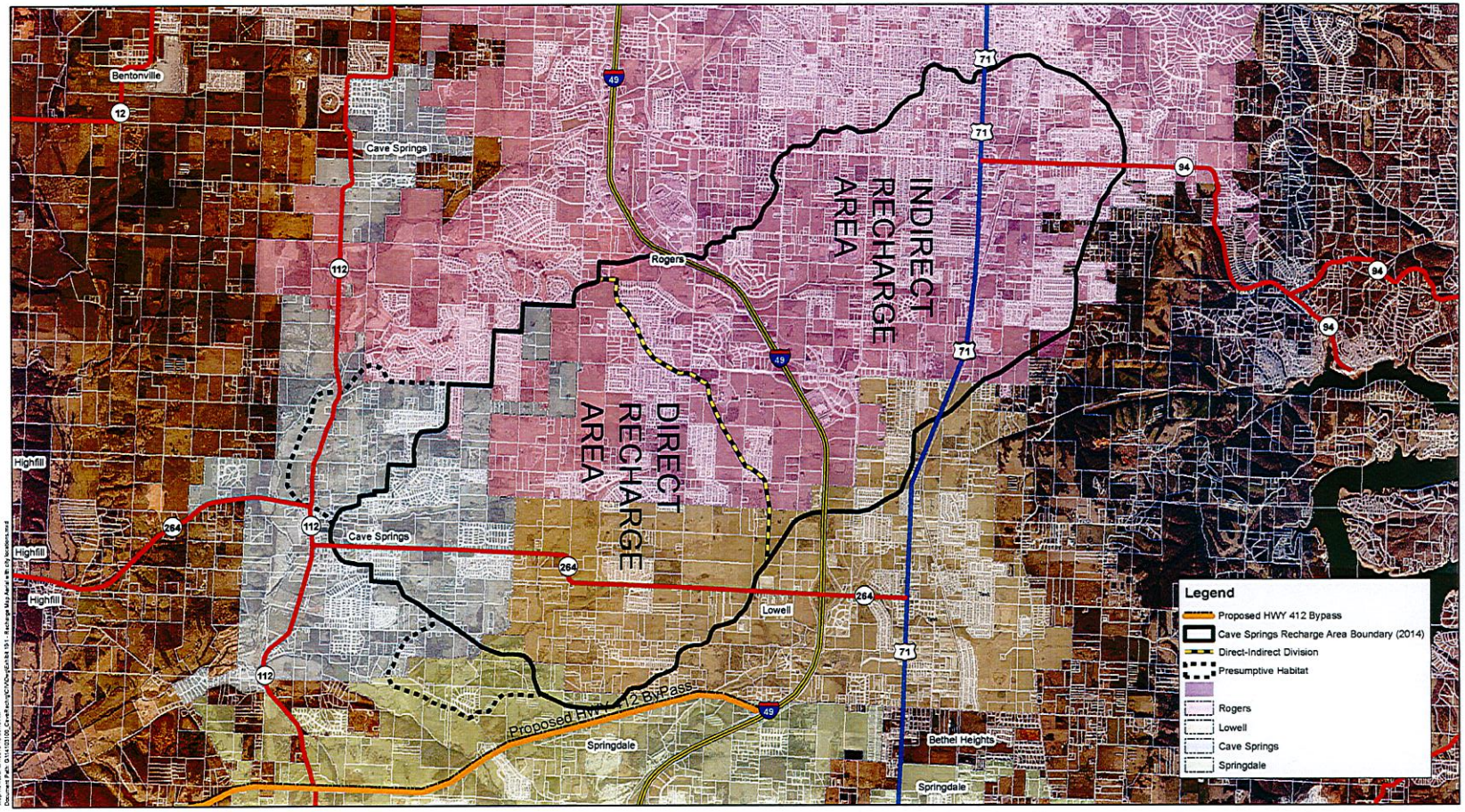
(l) Enforcement

1. Any development activity which fails to obtain a permit required by these CSK Regulations shall be deemed a violation of these CSK Regulations.

2. Any development activity which fails to abide by the terms and conditions of a disturbance permit issued pursuant to these CSK Regulations shall be deemed a violation of these regulations.

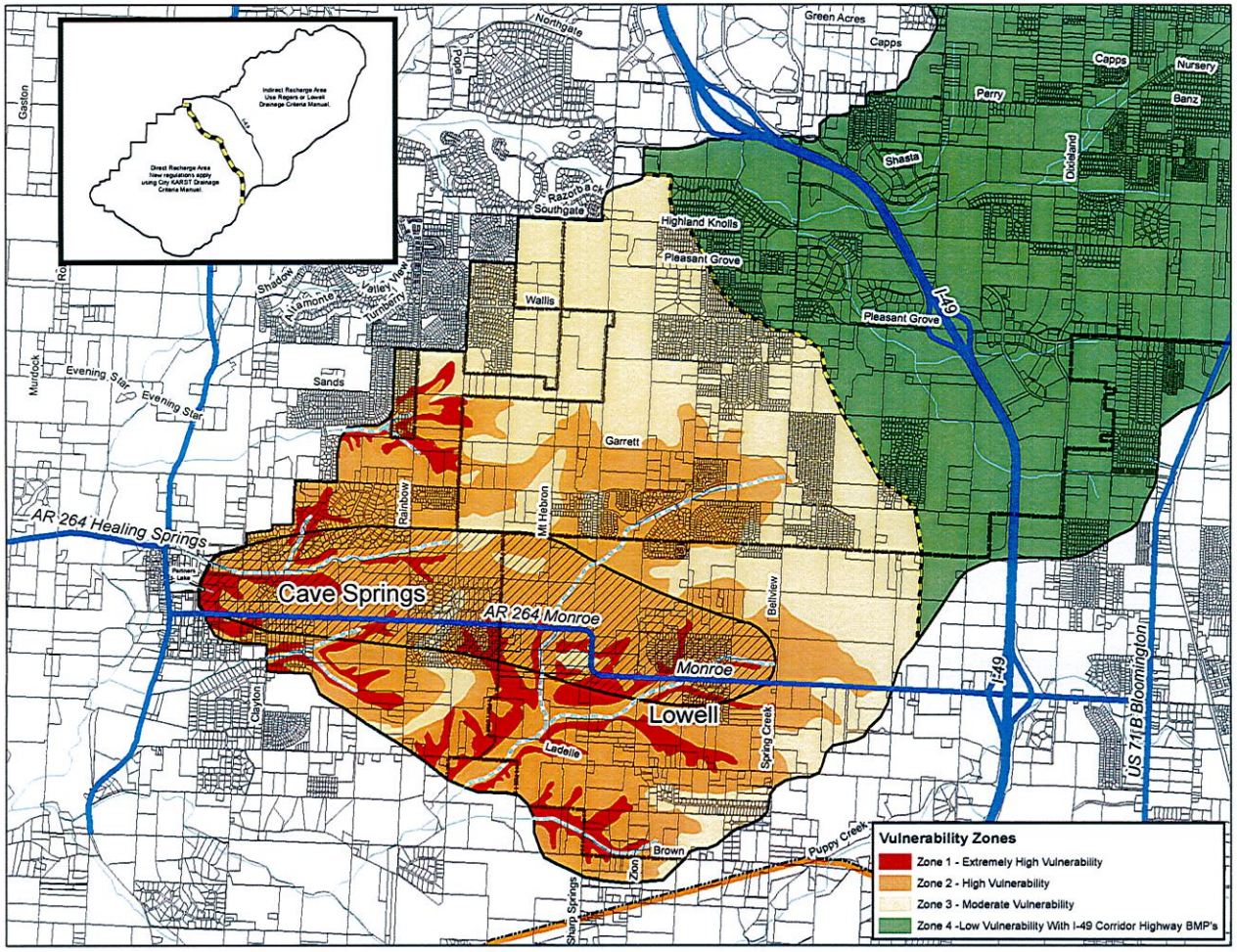
3. Every person violating any provision of these CSK Regulations shall be deemed to have committed a civil infraction for each and every day or portion of a day during which any infraction is committed, continued or permitted and shall be subject to the penalties contained in Rogers City Code Sec. 1-5.

4. In addition to other fines and penalties established herein for violations of this CSK Regulation, City of Rogers, Arkansas may seek an injunction requiring complete restoration of any area disturbed in violation of this CSK Regulation, or payment in lieu of restoration, and may issue stop work orders, withhold any further permits for site development and cease the processing of any site development applications related to the property, project or owner that violates the provisions of this CSK Regulation.



Cave Springs Area Karst Resource Conservation Study
Rogers, Lowell, Cave Springs, Springdale
Direct & Indirect Recharge Area Location
Exhibit "10-1"

N



Cave Springs Direct Recharge Area Vulnerability Zone Map Exhibit "10-2"

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Legend

- Losing Stream Corridor
- Streams & Rivers
- Cave Springs Recharge Area Boundary (2014)
- Direct-Indirect Division
- Cave Springs Groundwater Trough

Map Revised: 6/1/2015 9:58:57 AM
Document Path: G:\1141\03\00_CaveRechrgCI\VDwg\Exhibit 10-2 - Cave Springs Direct Recharge Area Vulnerability Zone Map.mxd